Marine Invasive Species

Natural Resource Program Center



Cliona thoosina

Boring sponge, Sulfur sponge

Threat scores

- 1. Ecological impact
 - Boring Sponges can form encrustations on mollusk shells, particularly oysters, and can burrow into the shell itself, weakening the shell and increasing the vulnerability to predators such as crabs and birds
 - In more severe cases, Boring Sponges can kill the host mollusk and even completely dissolve the shell
 - A fouling organism
- 2. Invasive potential
 - Larvae are short lived in water column, so localized re-establishment is possible, but long distance dispersal must be facilitated by other means shipping, oyster spat
- 3. Geographic extent
 - Locally patchy
- 4. Management difficulty
 - No known methods for eradicating established populations

Geography and Habitat

- 1. Origin: USA (Atlantic Coast)
- 2. Introduced: Alaska
- 3. Habitats
 - Marine, fouling communities, estuaries/bays
 - In marine environments, on rocks and shells of the seafloor and commonly bore holes in the objects in which it lives
 - These sponges burrow into calcium carbonate substrata by a chemomechanical process forming cavities which they inhabit

Invasion Pathways

- 1. Stocking in open waters—oyster industry
- 2. Hull/Surface fouling
- 3. Ballast Water and Sediments

Non native locations

1. 54- Gulf of Alaska

Sources

- 1. Molnar, Jennifer, et al. 2008. "Assessing the global threat of invasive species to marine biodiversity." *Frontiers in Ecology and the Environment.* 6 (9), pp. 485-492.
- 2. http://conserveonline.org/workspaces/global.invasive.assessment
- 3. http://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=2833